

THE UNIVERSITY OF CHICAGO
CHICAGO 37 · ILLINOIS
INSTITUTE OF RADIobiology AND BIOPHYSICS

Monday 1/5/53

Dear Esther & Josh,

Of course I will be happy to X-ray samples. None have arrived as of today.

Enclosed is the ms proof. I found it very nice. Would like reprint. By the way thanks for the reprints you sent me.

In regard to UVinactivated 22 on LT-2 followed by 22V, I would certainly expect lysis. But since you ask, I presume the correct answer is resistance. But what about the survivors - they must be lysogenic - if they are - how come the UV'ed 22 not followed by 22V does not produce lysogenies - or perhaps it does but does not produce lysis. Please let me know.

I have been pursuing an odd business I may have told you about. When B/t is plated with T5 on plates low in iron, about half the colonies are petite. These petites when plated in the absence of phage give large colonies. Addition of iron to the plates overcomes the petite phenomenon - giving large colonies even in the presence of phage. I suspect that the iron may serve ~~only~~ to kill the phage but in addition the petite does seem to require ~~more~~ larger concentrations of iron than the large. If one inactivates the

phage with UV or at 75° ~~the petite become large~~
~~the induced inhibition~~. However adsorption experiments indicate no adsorption of T5 by the petite strain. If one separates the phage from the bacteria with a cellophane sheet the colonies are large.

I suspect that there is a phage in our T5 that does not plate on B - that is responsible for our results. All we need is an indicator to demonstrate its presence. I am trying K-12 and will also try T5 stock prepared in K-12 to see if it duplicates the phenomenon. If you should have some old colo stocks on hand that might serve as indicators for such a phage, I would be interested.

David is growing fast. You must visit with him on your way through. By the way I want to tell you again how much I enjoyed my visit to Madison.

Regards to your gang
Aaron